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ABSTRACT

This paper introduces the concept of psychological androgyny to sociologists, examines the ways in which androgyny has been measured and operationally defined by psychologists, and reviews available research concerning the antecedents and correlates of androgyny. The results of original research conducted with 622 students at the University of Connecticut are reported. The findings indicate that level of identification of males with their mothers was positively related to their femininity, while for females, mothers' labor force participation had a positive effect on masculinity. Sex-role traits were significantly related to self-concept factors (self esteem, self concept, stability and personal efficacy). Significant relationship to family formation plans (ideal age for marriage and expected number of children) for both males and females and to the social and political attitudes of males were found. (Author)

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Androgyny: Concept, Measurement, Correlates and Antecedents

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Concept and Operationalization

Social scientists in several disciplines have recently become interested in the concept of psychological androgyny, a term which refers to the integration of both "masculine" and "feminine" personality traits in a single individual (Bem, 1974, 1975a, 1975b, 1976, 1977; Bem and Lenney, 1976; Bem, Martyna and Watson, 1976; Block, 1973; Hefner, Rebecca and Oleshansky, 1975; Kaplan and Bean, 1976; Spence, Helmreich and Stapp, 1975; Strahan, 1975). Sandra Bem (1974) pioneered in developing a research instrument to measure androgyny, the Bem Sex Role Inventory (BSRI). The BSRI consists of a number of personality characteristics to be self-rated by subjects from 1 ("Never or almost never true") to 7 ("Always or almost always true"). The BSRI includes a 20-item Masculinity scale containing "instrumental" traits ("acts as a leader, aggressive, ambitious, analytical, assertive, athletic, competitive, defends own beliefs, dominant, forceful, has leadership abilities, independent, individualistic, makes decisions easily, masculine, self-reliant, self-sufficient, strong personality, willing to take a stand, willing to take risks") judged by panels to be more desireable for a man than for a woman and a 20-item Femininity scale containing "expressive" traits ("affectionate, cheerful, childlike, compassionate, does not use harsh language, eager to sooth hurt feelings, feminine, flatterable, gentle, gullible, loves children, loyal, sensitive to the needs of others, shy soft spoken, sympathetic, tender, understanding, warm, yielding") judged to be more desirable for a woman than for a man. Prior to the development of the BSRI and similar instruments (Spence, et al., 1975) personality tests purporting to measure sex role characteristics treated masculinity and femininity as opposite poles of the same underlying dimension (Constantinople, 1973). In contrast, the BSRI treats Masculinity and Femininity as separate and independent personality dimensions.

Originally Bem operationally defined psychological androgyny as the absence of a statistically significant difference in an individual between self-ratings on the Masculinity and Femininity scales. Strahan (1975) quickly challenged the validity of Bem's use of the t ratio as a significance test in this regard on the grounds that the Masculinity and Femininity scores are obviously not obtained from separate groups of subjects. More recently Bem has come to agree with Spence et al. (1975) that only persons relatively high on both Masculinity and Femininity scores should be designated as androgynous. The classification of subjects according to this modified definition of psychological androgyny is accomplished through the calculation of median Masculinity and Femininity scores for a total sample composed of an equal number of male and female subjects. The subjects are then classified into four categories on the basis of having Masculinity and Femininity scores above or below the medians: feminine = low Masculinity and high Femininity scores; undifferentiated = low Masculinity and low Femininity scores; androgynous = high Masculinity and high Femininity scores; and masculine = high Masculinity and low Femininity scores (Bem, 1977; Spence et al., 1975). Bem (1977) has reported that reanalysis of her experimental data using the new operationalization of androgyny confirmed her previous findings and, in fact, tended to increase the level of differentiation in behavioral capacities between androgynous and non-androgynous subjects.

Measurement of Effects

In most studies of the effects of Masculinity and Femininity, one-way analysis of variance has been used to determine whether the subjects in the Masculinity-Femininity categories differed behaviorally or attitudinally. More recently Bem (1977) demonstrated and urged the future application of multiple regression

analysis in order to determine whether Masculinity, Femininity, or both, exert independent effects on specific dependent variables. It should also be noted that the inclusion of a Masculinity-Femininity product term in the multiple regression equation along with the Masculinity and Femininity factors permits a test for a potential interaction effect. An alternative test for an interaction effect can be carried out by classifying subjects as either high or low in Masculinity and Femininity on the basis of whether they scored above or below the total sample Masculinity and Femininity medians. A two-way analysis of variance of the two category Masculinity and Femininity factors then provides a test for both the direct or main effects of Masculinity and Femininity and potential interactions.

Correlates of Androgyny

Behavioral Experiments

Bem and her colleagues have conducted several studies to determine whether the way people rated themselves on the Masculinity and Femininity items of the BSRI actually related to behavioral capabilities. Bem (1975) reported two experiments in which subjects were tested for their tendency to be independent in decisions (a characteristic thought to be "masculine" by a panel) and for their tendency to play with a kitten (a behavior judged to be "feminine"). In the first experiment nine masculine, nine androgynous, and nine feminine Stanford University undergraduates of each sex were used as subjects (the t ratio procedure was used to determine assignment to the Masculinity-Femininity categories in these experiments). Subjects were asked to rate the funiness of cartoons as part of a "humor experiment." Through various electronic devices subjects were "allowed" to hear the evaluations of several others, whom they believed to be also naive subjects, before making their own judgements. In reality,

subjects heard the recorded voices of "stooges." The independence of the subjects was measured by recording the number of experimental trials in which the subject conformed to the judgements of the stooges. For both sexes the feminine subjects were significantly more conforming (less independent) than the masculine and androgynous subjects. In the second experiment thirty-three male and thirty-three female undergraduates at Stanford University who had rated themselves on the BSRI served as subjects. One-third of each sex were categorized respectively as masculine, androgynous or feminine types on the basis of the t ratio procedure. Subjects were placed in a room with a one-way mirror and given a series of tasks to perform. The true aim of the procedure was to observe the extent to which subjects' played with a kitten placed in the room with them. The results indicated that among the male subjects both the feminine and the androgynous males interacted significantly more with the kitten than did the masculine males. Among the females the results indicated that the androgynous subjects interacted more with the kitten than the masculine subjects , but the differences were not statistically significant. However, an additional analysis showed the unexpected result that androgynous females interacted significantly more with the kitten than the feminine women did. Bem was not sure why this result occurred but hypothesized a potential "fear" of feminine women to interact with animals.

In a more recent paper Bem and Lenney (1976) sought to determine whether masculine , androgynous, and feminine subjects differed in their preferences for and willingness to participate in a wide range of sex-typed behaviors. The subjects for this study were 144 Stanford University undergraduates who had responded to the BSRI and then were classified into groups, through use of

the t ratio procedure, of 24 masculine, 24 androgynous, and 24 feminine subjects of each sex. The subjects were presented with lists of activities, including some which were stereotypically masculine and others stereotypically feminine. The subjects were asked to select activities they would be willing to be photographed performing. They were told the photographs would be used in experiments at another university. The results indicated that sex-typed subjects (masculine males and feminine females) displayed significantly more sex stereotyping in activity preferences than androgynous and sex reversed (feminine males and masculine females) subjects. Furthermore, when the subjects were required to perform several "sex-inappropriate" activities, the sex typed subjects experienced more nervousness, less enjoyment and more negative feelings than the androgynous or sex-reversed subjects.

Bem, Martyna and Watson (1976) carried out a set of experiments designed to shed light on the earlier reported finding of the lack of responsive behavior towards a kitten on the part of feminine women. In the first experiment 84 undergraduate students at Stanford who had responded to the BSRI were classified as feminine, masculine, or androgynous on the basis of the t ratio test. There were 14 subjects in each category for each sex. The students were individually placed in a room with one of several babies aged 4 1/2 - 7 months. The students were told that the social responsiveness of the baby was being studied. In reality, the researchers were observing the degree of responsiveness and affectionate interaction of the subjects with the baby. The results were inconclusive in an initial analysis. Then the researchers re-classified the subjects into the four sex-role categories suggested by Spence et al. (1975). As explained by the first section of this paper, the categories are assigned by classifying individuals as being above or below the total sample Masculinity

and Femininity scores into the four categories, masculine, undifferentiated, androgynous, and feminine. A new analysis of variance indicated that the androgynous and feminine subjects were more responsive to the baby than were the masculine and undifferentiated subjects.

In the second experiment 84 undergraduates were categorized as feminine, androgynous and masculine on the basis of the t ratio in the same manner and proportions as in the first experiment. Subjects were told they were participating in an interpersonal attraction experiment in which they would engage in conversation with another student. The "other student" was really a stooge who told the subject he or she was lonely, isolated, and in need of new friends. The subjects were rated in terms of their responsiveness to the stooge's problems. The results indicated that feminine and androgynous subjects were significantly more responsive to the stooge's problems than were the masculine subjects. Taken together the results of these two experiments confirmed the greater expressive capacities of androgynous and feminine males in comparison to masculine males and that androgynous females were more responsive than masculine females. Furthermore, the results indicated that in these experiments, in which the target for expressive activity was human rather than animal, feminine women manifested the same high levels of responsiveness as androgynous women.

In summary, the behavioral experiments support the hypothesis that subjects designated androgynous on the basis of their responses to the Bem Sex Role Inventory possess the behavioral capacities of both the masculine and feminine types while the non-androgynous lack such behavioral flexibility. Bem (1977) directly addressed the question of which of the various methods for categorizing subjects as androgynous should be used in future research.

Bem reanalyzed all her past experimental data and some new social psychological data in terms of the 4 category profile suggested by Spence et al. (1975). In general, she found a clearer pattern of results using the 4 category median-split procedure and some important differences between the androgynous and undifferentiated types (those relatively low on both Masculinity and Femininity). In general, the undifferentiated subjects tended to be less expressive and have lower self esteem than the androgynous subjects. Thus, Ben concluded that she now agrees that the phrase psychological androgyny should be reserved only for those who score relatively high on both the Masculinity and Femininity dimensions of the BSRI or similar instruments.

Social Psychological Variables

Past Research

Several researchers have studied the relationship of androgyny to a number of social psychological variables. Block (1973) found that psychological androgyny, measured through an adjective self-descriptive test, was associated with advanced stages of moral reasoning, according to the criteria developed by Kohlberg (1964). In particular, subjects at the highest level of moral thinking in which "moral decisions are guided by universal principles of justice and concern for human worth" tended to be androgynous.

Spence et al. (1975) examined the relationship of self attributed "masculine" and "feminine" personality traits to attitudes towards women's equality and self-esteem among 248 male and 282 female undergraduates. Self-ratings on the masculine traits of the Personal Attributes Questionnaire were negatively but weakly correlated with favorability toward female equality as measured by the Attitude Toward Women Scale among men but not women. Self-ratings on the feminine traits were negatively but weakly correlated with favorability

toward female equality among women but not men. Furthermore, for both men and women self-ratings on both the masculine traits and the feminine traits were moderately to strongly, positively correlated with self-esteem as measured by the Texas Social Behavior Inventory. Spence and her associates operationally defined psychological androgyny as scoring above the medians on both the masculine traits and the feminine traits (as noted in the opening section of this paper). As expected from the positive raw correlation coefficients between the masculine and feminine traits and self-esteem, the male and female androgynous subjects had the highest levels of self-esteem.

Bem (1977) reported analyses of the relationship of the Masculinity and Femininity scales of the Bem Sex Role Inventory to various questionnaire measures of social psychological variables including the Texas Social Behavior Inventory (self-esteem), the Attitudes Towards Women Scale (women's equality), the Rotter Internal-External Locus of Control Scale, the Mach IV Scale (conceptions of "human nature"), the Self-Disclosure Scale (openness about personal life), and the Attitudes Toward Problem-Solving Scale (willingness to approach and solve problems). In this paper Bem used the median split procedure introduced by Spence et al. (1975) to create the four sex role categories of feminine, undifferentiated, androgynous, and masculine for 75 female and 95 male undergraduates who had been given the BSRI. Analysis of variance indicated that the sex role categories were related to self-esteem for both males and females. Androgynous and masculine subjects of both sexes had higher self esteem than the undifferentiated and feminine subjects. Bem then analyzed the data for self esteem as well as for all the other social psychological variables through multiple regressions of the independent effects of Masculinity and Femininity. Bem found that for men Masculinity had a strong positive effect on self esteem while Femininity had no independent effect. For women, however, not only did Masculinity have a strong positive

relationship to self esteem, but Femininity also had a significant though weaker positive relationship. For the Attitudes Toward Women Scale Femininity had a significant positive relationship to liberalism and Masculinity had a significant negative relationship to liberal attitudes towards women's role in society among men. However, neither Masculinity nor Femininity had a significant relationship to attitudes toward women's role among women. (Note that for these variables Spence et al. (1975) reported raw correlations and not multiple regression results.) Bem further reported that with the exception of a positive relationship of Masculinity to self disclosure willingness among men, neither Masculinity nor Femininity had significant relationships to any of the other social psychological variables she examined.

Current Research. The authors administered the Bem Sex Role Inventory and several measures of social psychological variables to 250 male and 370 female undergraduates enrolled in introductory sociology classes during the 1976 academic year at an eastern state university. The social psychological variables measured included self esteem, self stability, personal efficacy, ideal age for marriage, expected family size (number of children expected in marriage), civil liberties attitudes, domestic economic liberalism, attitudes toward assistance to the aged and opportunities for the poor, political orientations, and attitudes toward assisting poor nations.

The relationship of Masculinity and Femininity to self esteem (Rosenberg, 1973) self-stability (three items measuring the stability of feelings about self), and personal efficacy (the personally oriented items of the Rotter Internal-External Control Scale, 1969) was examined through the use of multiple regression analysis. The results are presented in Table 1.

(Place Table I here)

For both men and women Masculinity had a strong positive effect on self esteem. Femininity had no effect on self esteem for men, but did have a weak positive effect on self esteem for women. These findings are consistent with those reported by Bem (1977), who used the Texas Social Behavior Inventory measure of self esteem. The regression analysis also indicated that Masculinity had a positive effect on the stability of self conception. Femininity had no effect for either men or women. The same results were obtained for personal efficacy. Thus, for all three measures of self concept characteristics Masculinity had a significant positive relationship and, therefore, androgynous and masculine subjects of both sexes rated higher than undifferentiated and feminine subjects on self esteem, stability of feelings about self, and sense of control over personal fate.

The results of the regression analyses of ideal age for marriage and expected family size are reported in Table 2. For males, neither Masculinity

(Place Table 2 Here)

nor Femininity had a significant relationship to ideal age for marriage. Masculinity, however, had a positive effect on ideal age for marriage among women and Femininity had a negative effect. Thus, masculine women had the oldest ideal age for marriage (25.2 years) while feminine women had the youngest (24.2 years). Undifferentiated women (25 years) and androgynous women (24.9 years) had ideal ages for marriage between those of the masculine and feminine women. For both men and women Femininity had a positive effect on the number of children expected in marriage, while Masculinity had no

significant effect. Among women the feminine subjects had the highest number of children expected in marriage (2.51 children) while masculine women and undifferentiated women expected 2.06 children and 1.85 children respectively. Due to a probable interaction of Masculinity and Femininity, ($p < .1$), however, androgynous women had a relatively low expected number of children (2.16 children) which was (marginally) significantly lower ($p < .07$) than the number expected by feminine women. Masculine men had a relatively low expected number of children (2.15 children) while androgynous men had a relatively high number of expected children (3.01 children). Due to an indicated interaction of Masculinity and Femininity ($p < .02$) feminine men expected a relatively low 2.19 children and undifferentiated men expected 2.50 children.

Thus, the results indicated that androgynous women had an older ideal age for marriage than feminine women and expected fewer children in marriage. Androgynous men did not differ from masculine men in terms of the ideal age for marriage but did expect to have more children in marriage.

Beyond the self concept and family formation variables, the relationships of Masculinity and Femininity to several social, political, and economic attitude variables were examined. The results of these multiple regression analyses are presented in Table 3. The civil liberties index contained 4 items (taken

(Place Table 3 About Here)

from the Civil Liberties Index of the 1974 National Opinion Research Center General Social Survey) pertaining to the freedom of expression and rights of homosexuals and communists. For men Masculinity was marginally negatively related to liberalism on civil liberties while Femininity had no relationship.

For women femininity was marginally negatively related to liberalism on the index while Masculinity had no effect. For both men and women only about 2% of the variation in civil liberties attitudes was explained by Masculinity and Femininity.

For women the levels of explained variation in the remaining attitude variables were very low and Masculinity and Feminity had no effects with the exception of the domestic economic liberalism index and liberal-conservative political orientation. Masculinity had a weak but significant negative effect on economic liberalism (the economic liberalism index was composed of 6 questions measuring attitudes toward a government guaranteed minimal income, increased taxes on the rich, government provision of full employment, government guarantee of adequate housing, economic security and motivation to work, and socialized medicine) while Femininity had no relationship. Femininity had a weak and only near-significant negative relationship to liberalism in political orientation (self placement on choices ranging along six categories from right of Republican Party to left of the Democratic Party) while Masculinity had no relationship.

For each item, although the level of explained variation was generally low, the level of explained variation was higher for men, than for women. On all the economic and political attitude variables Femininity in men was significantly or near-significantly positively related to liberalism. For two variables, attitudes toward opportunities for the poor and attitudes toward assisting poor nations, Masculinity had significant negative effects on liberalism, while Femininity, as noted above, had significant positive effects. Masculine males had the least liberal attitudes on these two factors, while androgynous males were more liberal, particularly with regard to assisting poor nations.

Summarizing the results of analysis of the effects of Masculinity and Femininity on the social psychological variables for women we note that Masculinity had a significant positive effect on all three self concept variables, while Femininity had a lesser positive effect on self esteem. With regard to family formation factors, Masculinity had a positive effect on ideal age for marriage while Femininity had a negative effect. Femininity had a significant positive effect on the number of children expected in marriage, while Masculinity had no effect. And in general Masculinity and Femininity had little on impact on the social, political, and economic attitudes of women. Expressed alternatively the results indicated that androgynous women had greater self esteem, self concept stability, and personal efficacy than feminine women and possessed an older ideal age for marriage and lower expected family size. But androgynous women did not differ appreciably or consistently from feminine women on social, political and economic attitudes.

Among men, Masculinity had a significant positive effect on self esteem, self concept stability, and personal efficacy, while Femininity had no effect. Neither Masculinity nor Femininity had any effect on ideal age for marriage among men, but Femininity did have a significant positive effect on expected family size while Masculinity did not. For civil liberties liberalism there was a suggestion of a negative effect of Masculinity, while Femininity had no relationship. For all the economically oriented questions and political orientation Femininity had a positive effect on liberalism among men, while Masculinity had a significant (negative) relationship only to attitudes toward opportunities for the poor, and attitudes toward assisting poor nations. Thus, androgynous men had relatively high self esteem, self stability, and personal efficacy as did the masculine men and did not differ from masculine men in terms of ideal age for marriage. Androgynous men did expect more children in marriage

than masculine men, however. Furthermore, androgynous men generally proved to be more liberal than masculine men on economic attitudes and political orientation.

Antecedents of Androgyny

Although many studies have been performed directed at determining how males and females are differentially socialized (see reviews and data in Block, 1973; Hoffman, 1972; MacCoby and Jacklin, 1974), little research has been carried out explicitly to identify the determinants of the androgynous personality type. The several studies which have addressed the issue, however, have considered either family or sociocultural antecedents of sex role type.

Family Factors.

Past Research. Block (1973) reported the analysis of data for 65 men and 68 women whose socialization history had been studied from childhood in a longitudinal study over 30 to 40 years (depending on the individual) by the researchers of the Berkeley Institute of Human Development. All of the subjects had responded to the California Psychological Inventory (CPI) while between the ages of 30-40 years. On the basis of subject responses to the Femininity and Socialization subscales of the CPI Block was able to roughly identify masculine males and feminine females (sex-appropriate types) and androgynous persons of both sexes. Analysis of compiled family environment data revealed that the sex-appropriate individuals seemed to come from homes in which the parents displayed very traditional role differentiation. Androgynous persons, in contrast, came from homes in which the parents were less restricted and less

traditional in their behavior and manifested less stereotyped conceptions of masculinity and femininity both attitudinally and behaviorally.

Spence (1978) asked several hundred college undergraduates and high school students to rate themselves and their parents on the Personal Attributes Questionnaire (Spence et al., 1975) which contains "masculine" and "feminine" items similar to those of the Bem Sex Role Inventory. The results indicated that psychologically androgynous sons and daughters tended to report having androgynous parents.

Current Research. Along with the Bem Sex Role Inventory, measures of self concept and attitudes toward family formation and social, political and economic factors, the authors asked their 620 subjects to provide information on six family background factors: level of identification with father (desire to be the "kind of person your father is"); level of identification with mother; mother's labor force participation; the role of each parent in making financial decisions; the role of each parent in child rearing; and the role of each parent in performing household tasks.

Initially, each of the parental variables was cross-tabulated separately with subjects' sex role categories. For females, mother's labor force participation was significantly related to sex role category. As can be seen in Table 4 only 17% of women whose mother's did not work at all while they were in grades 1-8 were androgynous while 55% were feminine. In contrast, 34% of women whose mother's worked full-time were androgynous and only 28% were feminine. In order to better comprehend the way in which mother's labor force

(Place Table 4 here)

participation and any of the other five parental factors affected the development

of masculine and feminine personality characteristics, all six variables were entered into separate multiple regression analyses of the subjects' Masculinity and Femininity scores on the BSRI. Mother's labor force participation had a positive effect on Masculinity in women (β=.19, $p<.001$) while none of the other factors were related to Masculinity. For Femininity only the involvement of the subject's father in household tasks had a significant effect. The level of father's participation in household tasks had a negative relationship to Femininity in women (β=-.12, $p<.05$).

Among males the level of identification with the subject's mother had a significant relationship to sex role category in the crosstabular analysis. Table 5 shows that only 8% of the men who minimally identified with their mother's were androgynous while 51% were masculine. Among the men who greatly identified with their mothers 28% were androgynous and only 25% were masculine. Multiple regression

(Place Table 5 here)

analyses of Masculinity and Femininity for men revealed that the six parental variables had little relationship to Masculinity (only level of father's participation in household tasks was marginally positively related to Masculinity, β=.13, $p<.1$). For Femininity both level of identification with mother (β=.24, $p<.001$) and level of father's involvement in household tasks (β=.17, $p<.01$) had positive effects.

Available research suggests then, that equalitarian home life and androgynous parents tend to foster the development of androgynous children. Furthermore, mother's labor force participation seems to generate androgynous daughters by fostering the development of masculine personality traits. Level of identification with the mother and father's involvement in household tasks seem

to cause the development of androgynous sons by fostering the development of feminine personality traits.

Sociocultural and Economic Factors.

As yet there is little in the way of cross-cultural research directly focusing on whether instrumental (masculine) and expressive (feminine) personality traits are more differentiated in certain industrialized societies than in others. In one study however, Rodgers, Bronfenbrenner, and Devereux (1968) found that American and English children tended to be more highly differentiated in the values they place on sex stereotyped behavior than Soviet children. Additional evidence of cross-cultural differences has been provided by Block (1973) who performed a study in which she examined differentiation by sex of "agency" (instrumental or masculine) traits and "communal" (expressive or feminine) traits through means of a self-descriptive trait inventory administered to samples of students in the U.S. and several Western European countries. Block found that in general males described themselves much more in terms of instrumental traits and females much more in terms of expressive traits. However, there was considerable variation in the degree of differentiation among the countries. Of particular interest was the finding that among the societies with comparably high levels of industrialization, urbanization, and life styles, Sweden and Denmark, two countries with long standing well developed social welfare systems, had minimal differentiation (significant differences between the sexes at the .05 level on only 2 and 3 of the traits respectively). In contrast, the more purely capitalist systems of the U.S. and England (although in recent years the situation in England has shifted considerably) had much more differentiation (significant differences between the sexes on 8 and 9 traits respectively). Although Block noted the relationship of level of sex differentiation of personality traits to the

level of development of social welfare system, she did not offer an explanation for why such a relationship should exist.

Bronfenbrenner (1970) found that in general female children receive much more training in the performance of traditionally male types of economic activity in schools in the U.S.S.R. than in the U.S. Chow (1976) has also discovered a conscious effort on the part of the Chinese to create a more androgynous society through the socialization of children. Her content analyses of widely used children's picture books in the People's Republic of China and the U.S. revealed that, in contrast to the dominance of male characters and heavy sex typing in the American picture books, women were portrayed as pursuing traditionally male occupations in the Chinese books and male and female characters manifested near equal levels of instrumental ("masculine") and expressive ("feminine") behavioral traits.

Beyond conscious efforts at creating a sexually egalitarian society, the emphasis on generating relatively group-centered on "altruistic" personalities in socialist countries through "collective upbringing" techniques (Bronfenbrenner, 1970; Sidel, 1973) could well work to increase the percentage of androgynous persons in society. Bronfenbrenner (1970) reported research results which indicated that children in the U.S.S.R. were more sensitive to the needs and welfare of one another than children in the U.S. or children of several capitalist countries of Western Europe. Assuming that collective upbringing, an element of the superstructure of many socialist countries, operates to generate relatively group centered personalities in male as well as female children, the resultant male personality with both its instrumental and altruistic components might come close to resembling the androgynous male types of Bem's research in the U.S.

Furthermore, in light of the findings reported in the preceding section of this paper on the effect of mother's labor force participation on Masculinity,

and sex role type in daughters it is logical to expect that the socialist societies, which have higher levels of female labor force participation than the capitalist societies (Giele and Smock, 1977; Nuss, 1976; Sullerot, 1976) should generate a greater percentage of androgynous young women.

Whatever the various mechanisms responsible for the probable higher levels of androgyny in socialist societies in comparison with capitalist countries, DeFronzo (1976) has suggested that the androgynous personality is best suited to a socioeconomic system which maximizes the integration of instrumental and expressive forms of interaction and cooperativeness while minimizing economic insecurity, self-interested individualism, and social isolation. Obviously much research is required to confirm (or disprove) previous cross-cultural findings and to fully comprehend the reasons for sex role differences and similarities among societies

Table 1

Self Concept as a Function of Masculinity and Femininity[a]

	Males			Females		
	M	F	R^2	M	F	R^2
Self Esteem	.49****	.01	23.8%	.35****	.12**	12.6%
Self Concept Stability	.27****	-.12	8.5%	.27****	.03	7.1%
Personal Efficacy	.31****	-.09	9.8%	.29****	.01	8.4%

[a] M = Masculinity; F = Feminity. Standardized regression coefficients are presented in the columns under M and F.

* p. $<$.06-.1

** p $<$ .05

*** p $<$ .01

**** p $<$ .001

Table 2

Family Formation as a Function of

Masculinity and Femininity[a]

	Males			Females		
	M	F	R^2	M	F	R^2
Ideal Age For Marriage	.02	.01	.05%	.15**	-.17***	5.9%
Expected Family Size	-.05	.19**	3.6%	-.08	.23***	6.6%

[a] M = Masculinity; F = Femininity. Standardized regression coefficients are presented in the columns under M and F.

* $p < .06\text{-}.1$

** $p < .05$

*** $p < .01$

**** $p < .001$

Table 3

Social, Political, and Economic Attitudes as a Function of Masculinity and Femininity [a]

	Males			Females		
	M	F	R^2	M	F	R^2
Civil Liberties Index	-.14*	-.06	2.2%	.06	-.11*	1.7%
More Assistance to the Aged	-.06	.14*	2.2%	.03	.07	.7%
Opportunity Not Sufficient For Poor	-.21***	.11*	5.7%	-.06	.04	.5%
Domestic Economic Liberalism Index	-.08	.14*	2.6%	-.15***	.00	2.3%
Liberal-Conservative Political Orientation	-.06	.13**	2.2%	.04	-.09*	1.1%
More Assistance For Poor Nations	-.21***	.25****	10.0%	.03	-.04	.3%

[a] M = Masculinity; F = Femininity. Standardized regression coefficients are presented in the columns under M and F.

* $p < .06$-$.1$

** $p < .05$

*** $p < .01$

**** $p < .001$

Table 4

Sex Role Category as a Function of Mother's Labor Force Participation During Grades 1-8: College Women*

	Labor Force Participation			
Sex Role Category	None	Part-time	Full-time	
Masculine	8%	10%	10%	$r_1 = 34$
Androgynous	17%	20%	34%	$r_2 = 75$
Undifferentiated	20%	24%	28%	$r_3 = 83$
Feminine	55%	46%	28%	$r_4 = 175$
	$c_1 = 181$	$c_2 = 136$	$c_3 = 50$	$N = 367$

*$\chi^2_6 = 13.3$, $p < .04$.

Table 5

Sex Role Category as a Function of Level of Identification with Mother: College Men*

Sex Role Category	Identification with Mother: Low	Medium	High	
Masculine	51%	39%	25%	$r_1 = 93$
Androgynous	8%	23%	28%	$r_2 = 51$
Undifferentiated	36%	27%	35%	$r_3 = 76$
Feminine	5%	11%	12%	$r_4 = 23$
	$c_1 = 59$	$c_2 = 124$	$c_3 = 60$	$N = 243$

*$\chi^2_6 = 14.3$, $p < .03$.

References

Bem, Sandra L.

1974 "The measurement of psychological androgyny." Journal of Consulting and Clinical Psychology 42:155-162.

1975a "Sex-role adaptability: one consequence of psychological androgyny." Journal of Personality and Social Psychology 31:634-643.

1975b "Androgyny versus the tight little lives of fluffy women and chesty men." Psychology Today 9 (September):58-62.

1976 "Probing the promise of androgyny." Alexandra G. Kaplan and Joan P. Bean (Eds.) Beyond Sex-role Stereotypes: Readings Toward a Psychology of Androgyny. Boston: Little, Brown and Company.

1977 "On the utility of alternative procedures for assessing psychological androgyny." Journal of Consulting and Clinical Psychology 45:196-205.

Bem, Sandra L. and Ellen Lenney

1976 "Sex typing and the avoidance of cross-sex behavior." Journal of Personality and Social Psychology 33:48-54.

Bem, Sandra L., Wendy Martyna and Carol Watson

1976 "Sex typing and androgyny: further explorations of the expressive domain." Journal of Personality and Social Psychology 34:1016-1023.

Block, Jeanne H.

1973 "Conceptions of sex role: some cross-cultural and longitudinal perspectives." American Psychologist 28:512-526.

Bronfenbrenner, Urie

1970 Two Worlds of Childhood: U.S. and U.S.S.R. New York: Russell Sage Foundations.

Chow, Esther N.L.

1976 "Sex-role images in children's picture books: China, France and the United States." Paper presented at the Annual Meetings of the American Sociological Association, September 2, 1976.

Constantinople, Anne

1973 "Masculinity-femininity:: An exception to a famous dictum?" Psychological Bulletin 80:389-407.

DeFronzo, James

1976 "Androgyny and socioeconomic systems." Paper presented at the Annual Meetings of the American Sociological Association, August 31, 1976.

Giele, Janet Z. and Audrey C. Smock

1977 Women: Roles and Status in Eight Countries. New York: John Wiley and Sons.

Hefner, Robert, Meda Rebecca and Barbara Oleshansky

1975 "Development of sex-role transcendence." Human Development 18:143-158.

Hoffman, Lois W.

1972 "Early childhood experiences and women's achievement motives." Journal of Social Issues 28:129-155.

Kaplan, Alexandra G. and Joan P. Bean

1976 Beyond Sex-role Stereotypes: Readings Toward a Psychology of Androgyny. Boston: Little, Brown and Company.

Kohlberg, L.

1964 "Development of moral character and moral ideology." M. Hoffman and L. Hoffman (Eds.) Review of Child Development Research, Vol. 1, New York: Russell Sage Foundation.

Maccoby, E.E. and C.N. Jacklin

1974 The Psychology of Sex Differences. Stanford, California: Stanford University Press.

National Opinion Research Center

1974 General Social Survey. Chicago: NORC, University of Chicago.

Nuss, Shirley A.

1976 "The position of women in industrialized socialist and capitalist countries: a comparative study." Paper presented at the Annual Meetings of the American Sociological Association, August 31, 1976.

Rodgers, Robert R., Urie Bronfenbrenner and Edward C. Devereux, Jr.

1968 "Standards of social behavior among school children in four cultures." International Journal of Psychology 3:31-41.

Rosenberg, M.

1969 Self Esteem Scale. John P. Robinson and Phillip R. Shaver (Eds.) Measures of Social Psychological Attitudes. Ann Arbor, Michigan: Survey Research Center.

Rotter, J.B.

1969 Internal-External Control Scale. John P. Robinson and Phillip D. Shaver (Eds.) Measure of Social Psychological Attitudes. Ann Arbor, Michigan: Survey Research Center.

Sidel, Ruth

1972 Women and Child Care in China. Baltimore: Penguin Books.

Spence, Janet

1978 (Forthcoming Book)

Spence, Janet T., Robert Helmreich and Joy Stapp

1975 "Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and femininity." Journal of Personality and Social Psychology 32:29-39.

Strahan, Robert F.

1975 "Remarks on Bem's measurement of psychological androgyny: alternative methods and a supplementary analysis." Journal of Consulting and Clinical Psychology 43:568-571.

Sullerot, Evelyne

1971 Woman, Society and Change. New York: McGraw-Hill.